

**INITIAL EXPRESS TERMS  
FOR  
PROPOSED BUILDING STANDARDS  
OF THE  
CALIFORNIA BUILDING STANDARDS COMMISSION (CBSC)**

**REGARDING PROPOSED ADOPTION OF THE  
2015 UNIFORM MECHANICAL CODE (UMC) FOR THE  
CALIFORNIA CODE OF REGULATIONS (CCR), TITLE 24, PART 4**

(The State agency shall draft the regulations in plain, straightforward language, avoiding technical terms as much as possible and using a coherent and easily readable style. The agency shall draft the regulation in plain English. A notation shall follow the express terms of each regulation listing the specific statutes authorizing the adoption and listing specific statutes being implemented, interpreted, or made specific. (PART 1 – ADMINISTRATIVE CODE))

**LEGEND FOR EXPRESS TERMS**

1. Existing California amendments or code language being modified are in italics when they appear in the model code text: All such language appears in *italics*, modified language is underlined.
2. New California amendments: All such language appears underlined and in italics.
3. Repealed text: All such language appears in ~~strikeout~~.

**INITIAL EXPRESS TERMS**

The Building Standards Commission (CBSC) proposes to adopt the 2015 edition of the Uniform Mechanical Code (UMC) for codification and effectiveness into the 2016 edition of the California Mechanical Code (CMC) as presented on the following pages, including any necessary amendments. BSC further proposes to:

- Repeal the 2012 edition of the UMC and the 2013 CMC;
- Repeal amendments to the model code that are no longer necessary, repeal or amend building standards that are not addressed by a model code;
- Relocate or codify existing adopted and necessary amendments to the model code into the format of the model code proposed for adoption, the action of which has no regulatory effect; adopt new necessary amendments to the model code proposed for adoption; and/or
- Adopt new building standards that are not addressed by the model code proposed for adoption

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**PROPOSED REPEALS, ADOPTIONS AND NEW AMENDMENTS**

**ITEM 1. CBSC proposes to bring forward existing California amendments in the *preface* from the 2013 California Mechanical Code for adoption into the 2016 edition of the California Mechanical Code with additional amendments as follows:**

## PREFACE

This document is the 4<sup>th</sup> of ~~twelve~~ thirteen parts of the official triennial compilation and publication of the adoptions, amendments and repeal of administrative regulations to *California Code of Regulations, Title 24*, also referred to as the *California Building Standards Code*. Part 4 is known as the *California Mechanical Code* and incorporates, by adoption, the ~~2012~~ 2015 edition of the *Uniform Mechanical Code* of the International Association of Plumbing and Mechanical Officials with the California amendments.

The *California Building Standards Code* is published in its entirety every ...

## ACKNOWLEDGEMENTS

The 2013~~6~~ California Building Standards Code (Code) was developed through the outstanding collaborative efforts of the Department of Housing and Community Development, the Division of the State Architect, the Office of the State Fire Marshal, the Office of Statewide Health Planning and Development, the California Energy Commission, the California Department of Public Health, the California State Lands Commission, the Board of State and Community Corrections, and the California Building Standards Commission (Commission).

This collaborative effort included the assistance of the Commission's Code Advisory Committees and many other volunteers who worked tirelessly to assist the Commission in the production of this Code.

*Governor Edmund G. Brown Jr.*

*Members of the Building Standards Commission*

*Secretary ~~Anna Caballero~~ Marybel Batjer – Chair*  
*James Barthman – Vice-Chair*

<del>Stephen Jensen</del> <u>Elley Klausbruckner</u>	<del>Rose Conroy</del> <u>Cheryl Roberts</u>
<del>Randy Twist</del> <u>Larry Booth</u>	<del>Sheila Lee</del> <u>David Malcolm Carson</u>
<del>Richard Sawhill</del>	<del>Richard Sierra</del>
Kent Sasaki	Steven Winkel
<u>Raj Patel</u>	Erick Mikiten
<u>Pedro Santillan</u>	

*Jim McGowan – Executive Director*

*Michael L. Nearman – Deputy Executive Director*

## Legends of Abbreviations of Adopting State Agencies

BSC	California Building Standards Commission (see Section 1.2.0)
BSC-CG	California Building Standards Commission – CALGreen (see Section 1.3.0)
SFM ...	

### Notation:

Authority: Health and Safety Code §18934.5, 18949.6

References: Health and Safety Code §18934.5, 18949.6

**ITEM 2.** CBSC proposes to bring forward existing California amendments in *Chapter 1, Division I* through Chapter 1, Division II from the 2013 California Mechanical Code for adoption into the 2016 edition of the California Mechanical Code with additional amendments as follows:

**CHAPTER 1**  
**CALIFORNIA ADMINISTRATION**  
**DIVISION I**

**1.1.0 General**

**1.1.1 Title.** *These regulations shall be known as the California Mechanical Code, may be cited as such and will be referred to herein as “this code.” The California Mechanical Code is Part 4 of ~~twelve~~ thirteen parts of the official compilation and publication of the adoptions, amendment, and repeal of building regulations to the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. This part incorporates by adoption the ~~2012~~ 2015 Uniform Mechanical Code of the International Association of Plumbing and Mechanical Officials with necessary California amendments.*

**1.1.2 Purpose.** *The purpose of this code is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, access to persons with disabilities, sanitation, adequate lighting and ventilation, and energy conservation; safety to life and property from fire and other hazards attributed to the built environment; and to provide safety to fire fighters and emergency responders during emergency operations.*

**1.1.3 Scope.** *The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout the State of California.*

**1.1.3.1 Nonstate-regulated buildings, structures, and applications.** *Except as modified by local ordinance pursuant to Section 1.1.8, the following standards in the California Code of Regulations, Title 24, Parts 2, 2.5, 3, 4, 5, 6, 9, 10 and 11 shall apply to all occupancies and applications not regulated by a state agency.*

**1.1.3.2 State-Regulated Buildings, Structures, and Applications.** *The model code, state amendments to the model code, and/or state amendments where there are no relevant model code provisions, shall apply to the following buildings, structures, and applications regulated by state agencies as specified in Sections 1.2.0 through 1.14.0, except where modified by local ordinance pursuant to Section 1.1.8. When adopted by a state agency, the provisions of this code shall be enforced by the appropriate enforcing agency, but only to the extent of authority granted to such agency by the state legislature.*

**Note:** See Preface to distinguish the model code provisions from the California provisions.

1. *State-owned buildings, including buildings constructed by the Trustees of the California State University, and to the extent permitted by California laws, buildings designed and constructed by the Regents of the University of California, and regulated by the Building Standards Commission. See Section 1.2.0 for additional scope provisions.*

2. Section 1.3.0 is reserved for the Local detention facilities regulated by the Corrections Standards Authority Board of State and Community Corrections. See Section 1.3 for additional scope provisions.
3. Section 1.4.0 is reserved for the Department of Consumer Affairs. Barbering, cosmetology or electrolysis establishments, acupuncture offices, pharmacies, veterinary facilities, and structural pest control locations regulated by the Department of Consumer Affairs. See Section 1.4 for additional scope provisions.
4. Section 1.5.0 is reserved Reserved for the California Energy Commission. See Section 1.5 for additional scope provisions.
5. Section 1.6.0 is reserved for the Dairies and places of meat inspection regulated by the Department of Food and Agriculture. See Section 1.6 for additional scope provisions.
6. Organized camps, laboratory animal quarters, public swimming pools, radiation protection, commissaries serving mobile food preparation vehicles, and wild animal quarantine facilities regulated by the Department of Public Health. See Section 1.7 for additional scope provisions.
7. Hotels, motels, lodging houses, ~~apartment houses~~ apartments, dwellings, dormitories, condominiums, shelters for homeless persons, congregate residences, employee housing, factory-built housing, and other types of dwellings containing sleeping accommodations with or without common toilets or cooking facilities. See Section 1.8.2.1.1 for additional scope provisions.
8. Accommodations for persons with disabilities in buildings containing newly constructed covered multifamily dwellings, new common use spaces serving existing covered multifamily dwellings, additions to existing buildings where the addition alone meets the definition of "COVERED MULTIFAMILY DWELLINGS," and new common-use spaces areas serving new covered multifamily dwellings which are regulated by the Department of Housing and Community Development. See Section 1.8.2.1.2 for additional scope provisions.
9. Permanent buildings and permanent accessory buildings or structures constructed within mobilehome parks and special occupancy parks regulated by the Department of Housing and Community Development. See Section 1.8.2.1.3 for additional scope provisions.
10. Accommodations for persons with disabilities regulated by the Division of the State Architect. See Section 1.9.1 for additional scope provisions.
11. Public elementary and secondary schools, community college buildings, and state-owned or state-leased essential service buildings regulated by the Division of the State Architect. See Section 1.9.2 for additional scope provisions.
12. Reserved for the State Historical Building Safety Board with the Division of the State Architect. See Section 1.9.3 for additional scope provisions.
13. General acute care hospitals, acute psychiatric hospitals, skilled nursing and/or intermediate care facilities, clinics licensed by the Department of Public Health and

*correctional treatment centers regulated by the Office of Statewide Health Planning and Development. See Section 1.10 for additional scope provisions.*

*14. Applications regulated by the Office of State Fire Marshal include but are not limited to the following in accordance with Section 1.11:*

*1. Buildings or structures used or intended for use as an:*

*1.1. Asylum, jail, prison.*

*1.2. Mental hospital, hospital, home for the elderly, children's nursery, children's home or institution, school or any similar occupancy of any capacity.*

*1.3. Theater, dancehall, skating rink, auditorium, assembly hall, meeting hall, nightclub, fair building, or similar place of assemblage where 50 or more persons may gather together in a building, room or structure for the purpose of amusement, entertainment, instruction, deliberation, worship, drinking or dining, awaiting transportation, or education.*

*1.4. Small family day care homes, large family day-care homes, residential facilities and residential facilities for the elderly, residential care facilities.*

*1.5. State institutions or other state-owned or state-occupied buildings.*

*1.6. High rise structures.*

*1.7. Motion picture production studios.*

*1.8. Organized camps.*

*1.9. Residential structures.*

*2. Tents, awnings or other fabric enclosures used in connection with any occupancy.*

*3. Fire alarm devices, equipment and systems in connection with any occupancy.*

*4. Hazardous materials, flammable and combustible liquids.*

*5. Public school automatic fire detection, alarm, and sprinkler systems.*

*6. Wildland-urban interface fire areas.*

*15. Section 1.12.0 is reserved for Public libraries constructed and renovated using funds from the California Library Construction and Renovation Bond Act of 1988 and regulated by the State Librarian. See Section 1.12 for additional scope provisions.*

*16. Section 1.13.0 is reserved for the Graywater systems regulated by the Department of Water Resources. See Section 1.13 for additional scope provisions.*

*17. For applications listed in Section 1.9.1 regulated by the Division of the State Architect – Access Compliance, outdoor environments and uses shall be classified according to accessibility uses described in Chapter 11A, 11B and 11C.*

*18. Section 1.14.0 is reserved for Marine Oil Terminals regulated by the California State Lands Commission. See Section 1.14 for additional scope provisions.*

**1.1.4 Appendices.** Provisions contained in the appendices of this code shall not apply unless specifically adopted by a state agency or adopted by a local enforcing agency in compliance with Health and Safety Code Section 18901 et. seq. for Building Standards Law, Health and Safety Code Section 17950 for State Housing Law and Health and Safety Code Section 13869.7 for Fire Protection Districts. See Section 1.1.8 of this code.

**1.1.5 Referenced codes.** The codes, standards and publications adopted and set forth in this code, including other codes, standards and publications referred to therein are, by title and date of publication, hereby adopted as standard reference documents of this code. When this code does not specifically cover any subject related to building design and construction, recognized architectural or engineering practices shall be employed. The National Fire Codes, standards, and the Fire Protection Handbook of the National Fire Protection Association are permitted to be used as authoritative guides in determining recognized fire prevention engineering practices.

**1.1.6 Nonbuilding standards, orders and regulations.** Requirements contained in the Uniform Mechanical Code or in any other referenced standard, code or document, which are not building standards as defined in Health and Safety Code Section 18909, shall not be construed as part of the provisions of this code. For nonbuilding standards, orders, and regulations, see other titles of the California Code of Regulations.

**1.1.7 Order of precedence and use.**

**1.1.7.1 Differences.** In the event of any differences between these building standards and the standard reference documents, the text of these building standards shall govern.

**1.1.7.2 Specific provisions.** Where a specific provision varies from a general provision, the specific provision shall apply.

**1.1.7.3 Conflicts.** When the requirements of this code conflict with the requirements of any other part of the California Building Standards Code, Title 24, the most restrictive requirements shall prevail.

**Exception:** Detached one-and two-family dwellings, efficiency dwelling units, lodging houses, live/work units, townhouses not more than three stories above grade plane with a separate means of egress, and their accessory structures, shall not be required to comply with the California Residential Code if constructed in accordance with the California Building Code.

**1.1.8 City, county, or city and county amendments, additions or deletions.**

The provisions of this code do not limit the authority of city, county, or city and county governments to establish more restrictive and reasonably necessary differences to the provisions contained in this code pursuant to complying with Section 1.1.8.1. The effective date of amendments, additions, or deletions to this code by a city, county, or city and county filed pursuant to Section 1.1.8.1 shall be the date filed. However, in no case shall the amendments, additions or deletions to this code be effective any sooner than the effective date of this code.

Local modifications shall comply with Health and Safety Code Section 18941.5 for Building Standards Law, Health and Safety Code Section 17958 for State Housing Law or Health and Safety Code Section 13869.7 for Fire Protection Districts.

**1.1.8.1 Findings and filings.**

1. The city, county, or city and county shall make express findings for each amendment, addition or deletion based upon climatic, topographical, or geological conditions.

**Exception:** Hazardous building ordinances and programs mitigating unreinforced masonry buildings.

2. The city, county, or city and county shall file the amendments, additions, or deletions expressly marked and identified as to the applicable findings. Cities, counties, cities and counties, and fire departments shall file the amendments, additions or deletions, and the findings with the California Building Standards Commission at 2525 Natomas Park Drive, Suite 130, Sacramento, CA 95833.
3. Findings prepared by fire protection districts shall be ratified by the local city, county, or city and county and filed with the California Department of Housing and Community Development, Division of Codes and Standards, P.O. Box 1407, Sacramento, CA 95812-1407 or ~~4800 3rd Street, Room 260, Sacramento, CA 95814~~ 2020 W. El Camino Avenue, Suite 250, Sacramento, CA 95833-1829.

**1.1.8.2 Locally adopted energy standards – California Energy Code, Part 6.**

In addition to the provisions of Section 89.101.8.1 of this Part, the provisions of this section applies to cities, counties, and city and county amending adopted energy standards affecting buildings and structures subject to the California Energy Code, Part 6.

Applicable provisions of Public Resources Code Section 25402.1 and applicable provisions of Chapter 10 of the California Administrative Code, Part 1 apply to local amendment of energy standards adopted by the California Energy Commission.

**1.1.9 Effective date of this code.** Only those standards approved by the California Building Standards Commission that are effective at the time an application for building permit is submitted shall apply to the plans and specifications for, and to the construction performed under, that permit. For the effective dates of the provisions contained in this code, see the History Note page of this code.

**1.1.10 Availability of codes.** At least one complete copy each of Titles 8, 19, 20, 24, and 25 with all revisions shall be maintained in the office of the building official responsible for the administration and enforcement of this code. Each state department concerned and each city, county or city and county shall have an up-to-date copy of the code available for public inspection, See Health and Safety Code Section 18942 ~~(d)~~(e)(1) and (2).

**1.1.11 Format.** This part fundamentally adopts the International Building Code by reference on a chapter-by-chapter basis. When a specific chapter of the International Building Code is not printed in the code and is marked "Reserved", such chapter of the International Building Code is not adopted as a portion of this code. When a specific chapter of the International Building Code is marked "Not adopted by the State of California" but appears in the code, it may be available for adoption by local ordinance.

**Note:** Matrix Adoption Tables at the front of each chapter may aid the code user in determining which chapter or sections within a chapter are applicable to buildings under the authority of a specific state agency, but they are not to be considered regulatory.

**1.1.12 Validity.** If any chapter, section, subsection, sentence, clause or phrase of this code is for any

*reason held to be unconstitutional, contrary to statute, exceeding the authority of the state as stipulated by statutes or otherwise inoperative, such decision shall not affect the validity of the remaining portion of this code.*

## **SECTION 1.2 BUILDING STANDARDS COMMISSION**

### **1.2.0 Building Standards Commission.**

**1.2.1 BSC** *Specific scope of application of the agency responsible for enforcement, the enforcement agency, and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated.*

#### **1. State Buildings for all Occupancies.**

**Application** – *State buildings (all occupancies), including buildings constructed by the Trustees of the California State University (CSU) and the Regents of the University of California (UC) where no state agency has the authority to adopt building standards applicable to such buildings.*

**Enforcing Agency** – *State or local agency specified by the applicable provisions of law.*

**Authority Cited** – *Health and Safety Code section 18934.5.*

**Reference** – *Health and Safety Code, Division 13, Part 2.5, commencing with section 18901.*

#### **2. University of California, California State Universities, and California Community Colleges.**

**Application** – *Standards for lighting for parking lots and primary campus walkways at the University of California, California State Universities, and California Community Colleges.*

**Enforcing Agency** – *State or local agency specified by the applicable provisions of law.*

**Authority Cited** – *Government Code section 14617.*

**Reference** – *Government Code section 14617.*

#### **3. Existing State-Owned Buildings, including those owned by the University of California and by the California State University–**

*Building seismic retrofit standards including abating falling hazards of structural and nonstructural components and strengthening of building structures. See also Division of the State Architect.*

**Enforcing Agency** – *State or local agency specified by the applicable provisions of law.*

**Authority Cited** – *Government Code section 16600*

**Reference** – *Government Code sections 16600 through 16604*

#### **4. Unreinforced Masonry Bearing Wall Buildings.**

**Application** – *Minimum seismic strengthening standards for buildings specified in ~~Appendix Chapter 4 of the California Code for Existing Building Conservation Code~~, except for buildings subject to building standards adopted pursuant to Part 1.5 (commencing with Section 17910)*

**Enforcing Agency** – *State or local agency specified by the applicable provisions of law.*

**Authority Cited** – *Health and Safety Code section 18934.67*

**Reference** – *~~Health and Safety Code sections 18901 through 18949~~ Health and Safety Code Division 13, Part 2.5 commencing with Sections 18901.*

**1.2.2 Alternate Materials, Design, and Methods of Construction and Equipment.** *The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved. An alternative material, design, or method of construction shall be approved where the building*

*finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method of work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quantity, strength, effectiveness, fire resistance, durability and safety.*

**1.2.2.1 State building.** *For purposes of this code, a “state building” is a structure for which a state agency or state entity has authority to construct, alter, enlarge, replace, repair or demolish.*

**1.2.2.2 Enforcement.** *[CSU, UC, Judicial Council and California Department of Corrections Rehabilitation] state agencies or state entities authorized to construct state buildings may appoint a building official who is responsible to the agency for enforcement of the provisions of the California Building Standards Code.*

**Exception:** *State buildings regulated by other sections of this code remain the enforcement responsibility of the designated entities.*

**1.2.2.3 Enforcement, Reserved for DGS.**

**1.2.2.4 Adopting agency identification.** *The provisions of this code applicable to buildings identified in this section will be identified in the Matrix Adoption Tables under the acronym BSC.*

**1.2.3 BSC-CG.** *Specific scope of application of the agency responsible for enforcement, the enforcement agency, and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated.*

**Application** – *All occupancies where no other state agency has the authority to adopt green building standards applicable to those occupancies.*

**Enforcing agency** – *State or local agency specified by the applicable provisions of law.*

**Authority cited** – *Health and Safety Code Sections 18930.5, 18938 and 18940.5.*

**Reference** – *Health and Safety Code, Division 13, Part 2.5, commencing with Section 18901.*

**1.2.23.1 Research Reports.** *Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in this code, shall consist of valid research reports from approved sources.*

**1.2.23.2 Tests.** *Whenever there is insufficient evidence of compliance with the provisions of this code, or evidence that a material or method does not conform to the requirements of this code, or in order to substantiate claims for alternative materials or methods, the building official shall have the authority to require tests as evidence of compliance to be made at no expense to the jurisdiction. Test methods shall be as specified in this code or by other recognized test standards. In the absence of recognized and accepted test methods, the building official shall approve the testing procedures. Tests shall be performed by an approved agency. Reports of such tests shall be retained by the building official for the period required for retention of public records.*

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**1.12.0 Reserved for the State Librarian.**

**1.13.0 Reserved for the Department of Water Resources.**

**1.14.0 Reserved for the State Lands Commission**

**CBSC proposes not to adopt CHAPTER 1 of the 2015 UMC for use in the 2016 CMC as Division II.**

## **ADMINISTRATION**

### **Chapter 1 (2015 UMC) - *DIVISION II (2016 CMC)***

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**Notation:**

Authority: Health and Safety Code §18934.5, 18949.6

References: Health and Safety Code §18934.5, 18949.6

**ITEM 3. CBSC proposes to adopt Chapter 2 of the 2015 UMC, with existing amendment to be moved forward without change.**

## **CHAPTERS 2 DEFINITIONS**

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### **209.0**

### **-G-**

**Galvanized Steel.** A steel that has been coated with a thin layer of zinc for corrosion protection; *conforming to the requirements of ASTM A653/A653M Standard Specification for Steel Sheet, Zinc-Coat (Galvanized) or Zinc-Iron Alloy-Coat (Galvanized) by the Hot Dip Process.*

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**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 4. CBSC proposes to adopt Chapter 3 of the 2015 UMC, without amendments.**

## **CHAPTER 3 GENERAL REGULATIONS**

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**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 5. CBSC proposes to adopt Chapter 4 of the 2015 UMC, with existing amendments, new amendments show below.**

**CHAPTER 4  
VENTILATION AIR**

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**402.0 Ventilation Air.**

**402.1 Occupiable Spaces** Occupiable spaces listed in Table 402.1 shall be designed to have ventilation (outdoor) air for occupants in accordance with this chapter. *Ventilation air supply requirements for occupancies regulated by the California Energy Commission are found in the California Energy code.*

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**TABLE 402.1  
MINIMUM RATES IN BREATHING ZONE<sup>1, 2, 4</sup>  
[ASHRAE 62.1: TABLE 6.2.2.1]**

**Note:** *Ventilation air supply requirements for occupancies regulated by the California Energy Commission are found in the California energy code. (This note to be located under the title at the top of Table 402.1)*

[Table not shown for clarity]

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**403.9 403.10 Exhaust Ventilation for Enclosed Parking Garages.** Exhaust airflow for enclosed parking garages shall be provided in accordance with the requirements in Table 403.7 and this section. Exhaust makeup air shall be permitted to be any combination of outdoor air to transfer air. Exhaust systems shall operate continuously.

**Exceptions:**

- (1) Mechanical ventilation systems used for enclosed parking garages shall be permitted to operate intermittently where the system is arranged to operate automatically upon detection of vehicle operation or the presence of occupants by approved automatic detection devices.
- (2) Automatic carbon monoxide sensing devices may be employed to modulate the ventilation systems to not exceed a maximum average concentration of carbon monoxide of 50 parts per million during any eight-hour period, with a maximum concentration not greater than 200 parts per million for a period not exceeding one hour. Automatic carbon monoxide sensing devices employed to modulate parking garages ventilation systems shall be approved pursuant to the requirements in Section 302.1.

**~~403.9.1~~ 403.10.1 Alternate Exhaust Ventilation for Enclosed Parking Garages.**

**~~403.9.1.1~~ 403.10.1.1 Maximum Exhaust Rate.** In lieu of the exhaust rates in table 403.7, ventilation systems shall be capable of providing 14,000 cfm (6608 L/s) of exhaust air for each operating vehicle. Number of operating vehicles shall be determined based on 2.5 percent of all parking spaces (and not less than one vehicle).

**~~403.9.1.2~~ 403.10.1.2 Exhaust Inlet Distribution.** To ensure proper exhaust of

*contaminated air and fumes from parking garages, exhaust systems utilizing multiple exhaust inlets shall be designed so that exhaust inlets are distributed in such a manner that no portion of the parking garage is more than 50 feet (15,240 mm) from an exhaust inlet. Such exhaust inlets shall be installed so that the highest elevation of the exhaust inlet is no greater than 12 inches (305 mm) below the lowest ceiling level.*

**Exception:** Garage exhaust systems designed without distribution exhaust inlets may have their exhaust inlets designed based on the principles of engineering and mechanics and shall provide the minimum required exhaust rate in Table 403.7.

~~409.9.1.3~~ **403.10.1.3 Exhaust Systems Operation.** Exhaust systems shall operate continuously unless one of the exceptions to continuous operation of Section 403.9 is utilized.

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**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 6. CBSC proposes to adopt Chapter 5 of the 2015 UMC, without amendments.**

**CHAPTER 5  
EXHAUST SYSTEMS**

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**503.0 Motors, Fans, and Filters**

**503.1 General...**

**503.2 Fans...**

**503.3 Filters. [BSC-CG]** In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air that provides at least a Minimum Efficiency Reporting Value (MERV) of 8. MERV 8 filters shall be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual in compliance with Chapter 5, Division 5.5. of the California Green Building Standards Code (CALGreen).

**Exceptions:**

1. An ASHRAE 10-percent to 15-percent efficiency filter shall be permitted for an HVAC unit meeting the 2013 California Energy Code having 60,000 Btu/h or less capacity per fan coil, if the energy use of the air delivery system is 0.4 W/cfm or less at design air flow.
2. Existing mechanical equipment.

**503.3.1 Labeling.** Installed filters shall be clearly labeled by the manufacturer indicating the MERV rating.

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**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 7. CBSC proposes to adopt Chapter 6 of the 2015 UMC, with existing amendments.**

**CHAPTER 6  
DUCT SYSTEMS**

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**602.1 General.** Supply air, return air, and outside air for heating, cooling, or evaporative cooling duct systems constructed of metal shall comply with SMACNA HVAC Duct Construction Standards–Metal and Flexible or UL 181.

Concealed building spaces or independent construction within buildings shall be permitted to be used as ducts or plenums.

~~In other than Group A, E, H, I, L and R occupancies, high-rise buildings, and other applications listed in Section 1.11 regulated by the Office of the State Fire Marshal, corridors shall not be used to convey air to or from rooms where the corridor is required to be of fire-resistive construction in accordance with the California Building Code. In Group A, E, H, I, L and R occupancies, high-rise buildings, and other applications listed in Section 1.11 regulated by the Office of the State Fire Marshal, corridors shall not be used to convey air to~~

...

**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 8. CBSC proposes to adopt Chapters 7 through 10 of the 2015 UMC, without amendments.**

**CHAPTER 7 - COMBUSTION AIR  
CHAPTER 8 – CHIMNEYS AND VENTS  
CHAPTER 9 – INSTALLATION OF SPECIFIC APPLIANCES  
AND  
CHAPTER 10 – BOILERS AND PRESSURE VESSELS**

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**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 9. CBSC proposes to adopt Chapter 11 of the 2015 UMC, without amendment.**

**CHAPTER 11  
REFRIGERATION**

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**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 10. CBSC proposes to adopt Chapters 12 through 14 of the 2015 UMC, without amendments.**

**CHAPTER 12 – HYDRONICS  
CHAPTER 13 – FUEL GAS PIPING  
AND  
CHAPTER 14 – PROCESS PIPING**

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**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 11. CBSC proposes not to adopt Chapter 15 of the 2015 UMC.**

**CHAPTER 15  
SOLAR SYSTEMS**

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**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 12. CBSC proposes to adopt Chapters 16 and 17 of the 2015 UMC, without amendments.**

**CHAPTER 16 – STATIONARY POWER PLANTS  
AND  
CHAPTER 17 – REFERENCED STANDARDS**

Table 1701.1 Standards for Equipment and Materials.

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**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 13. CBSC proposes to not adopt Appendix Chapter A of the 2015 UMC.**

**APPENDICES**

**APPENDIX A - Residential Plan Examiner Review Form for HVAC System Design**

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**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 14. CBSC proposes to adopt Appendices B and C of the 2015 UMC with no new amendments.**

**APPENDIX B – Procedures to be Followed to Place Gas Equipment in Operation.**

**AND**

**APPENDIX C – Installation and Testing of Oil (Liquid) Fuel-Fired Equipment.**

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**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 15. CBSC proposes not to adopt Appendices E, F and G of the 2015 UMC with no new amendments.**

**APPENDIX E – Sustainable Practices**

**APPENDIX F – Sizing of Venting Systems and Outdoor Combustion and Ventilation Opening Design**

**AND**

**APPENDIX G – Example Calculation of Outdoor Air Rate.**

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**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5